Ticketing Services

Final API Outline

I think we should each modify our system to create, update, delete, and get tickets. As we are ‘ticketing’ systems according to the professors, calling them tickets makes sense.

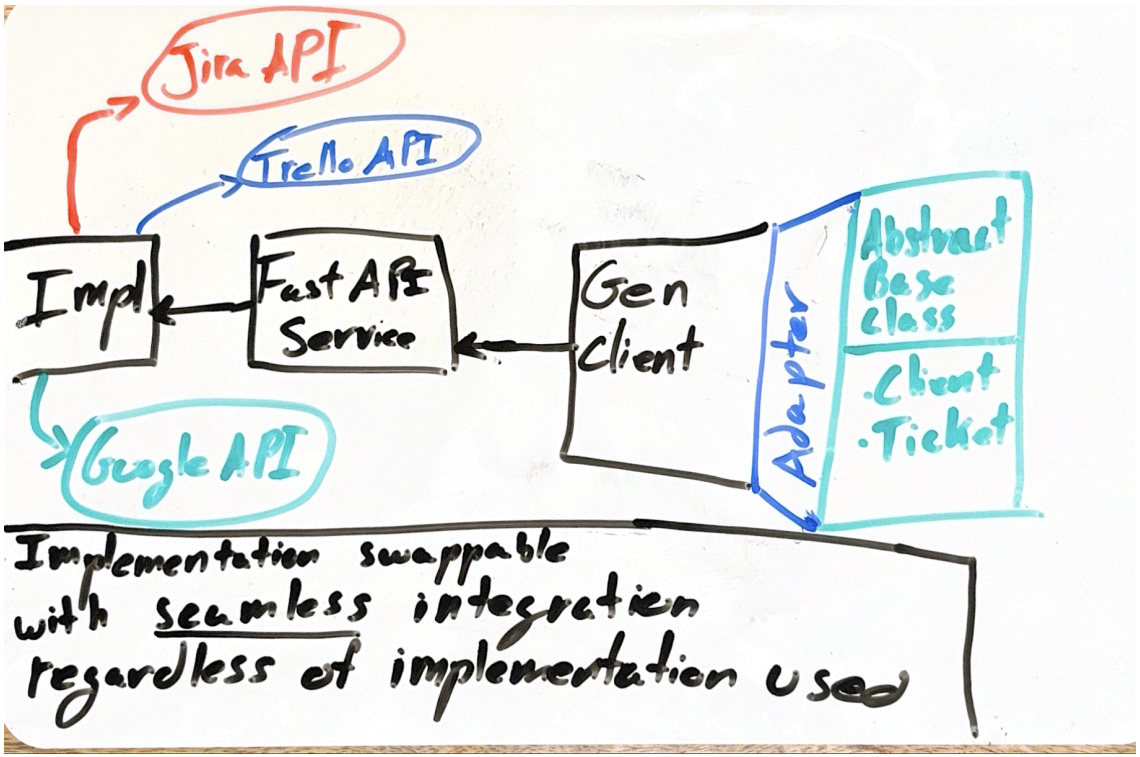
We will eliminate list management all together. This means our services will just use one single list on the backend to manage users tasks. I don’t think this would affect the user experience at all as only the AI would interact with our service.

API Methods

	Parameters	Return Value
create_ticket	`title: str, description: str`	`ticket: Ticket`
update_ticket	`ticket_id: str, title: str, description: str, status: bool`	`ticket: Ticket`
delete_ticket	`ticket_id: str`	`success: bool`
get_ticket	`ticket_id: str`	`ticket: Ticket`

Ticket Object Contract

```
class Ticket:
      string id
      string title
      string description
      bool status
```



Implementation Plans

To align our services with the above API outline we will do the following:

Google Tasks

- Update Client methods to ticket methods only, and remove tasklist methods
- remove tasklist class, since we are not exposing it for api or adapter
- Update Task
    - Refactor code to use the word '*Ticket*' in place of '*Task*'
    - Update ABC Task to new ticket object contract
- Update gtask implementation to use a single list for all ticket interactions, can keep tasklist methods, but use them only internally to handle API methods above
- update fastapi endpoints and unit tests ensure consistency with base api
- regenerate open-api code and update adapter to build off of new base api

Jira

- Update function parameters and apply preset parameters for the remaining fields.
- Used one fixed Jira project as the default container for all tickets
- Map boolean status to Jira's workflow transitions (false -> To do, True -> Done)

Trello

- Replace Kanban terminologies with ticket terminologies, ie. Card => Ticket
- Use only one board and one list
- Add to-do status handling in update
- Move authorization methods out

Analyzing Current State of Ticketing Services

Trello

Lists

```
get_lists(board_id: str) -> list[KanbanList]
create_list(board_id: str, name: str) -> KanbanList
update_list(list_id: str, name: str | None) -> KanbanList
```

Cards

```
get_cards(list_id: str) -> list[KanbanCard]
get_card(card_id: str) -> KanbanCard
create_card(list_id: str, name: str, description: str | None) -> KanbanCard
update_card(card_id: str, name: str | None, description: str | None, list_id: str | None) ->
KanbanCard
delete_card(card_id: str) -> bool
```

Boards
get_boards() -> list[KanbanBoard]
get_board(board_id: str) -> KanbanBoard
create_board(name: str, description: str | None) -> KanbanBoard
update_board(board_id: str, name: str | None, description: str | None) -> KanbanBoard
delete_board(board_id: str) -> bool

Authorization *Should be in impl?*
get_current_user() -> KanbanUser
get_authorization_url(state: str | None) -> str
exchange_token() -> str

Google Tasks

Tasklists
delete_tasklist(tasklist_id: str) -> bool
insert_tasklist(tasklist: TaskList) -> TaskList
list_tasklists() -> list[TaskList]

Tasks
list_tasks(tasklist_id: str) -> list[Task]
insert_task(tasklist_id: str, task: Task) -> Task
delete_task(tasklist_id: str, task_id: str) -> bool
get_task(tasklist_id: str, task_id: str) -> Task

Jira

Tickets
create_ticket(title: str, description: str, reporter: str, priority: TicketPriority, assignee: str | None) -> Ticket
get_ticket(ticket_id: UUID) -> Ticket | None
list_tickets(status: TicketStatus | None, assignee: str | None, reporter: str | None, limit: int, offset: int) -> list[Ticket]
update_ticket(ticket_id: UUID, title: str | None, description: str | None, status: TicketStatus | None, priority: TicketPriority | None, assignee: str | None) -> Ticket | None
delete_ticket(ticket_id: UUID) -> bool

– The following seem like they are only available in Jira?
transition_status(ticket_id: UUID, new_status: TicketStatus) -> Ticket | None
reassign_ticket(ticket_id: UUID, new_assignee: str) -> Ticket | None
update_priority(ticket_id: UUID, new_priority: TicketPriority) -> Ticket | None
update_description(ticket_id: UUID, new_description: str) -> Ticket | None

Comments
add_comment(ticket_id: UUID, author: str, content: str) -> Comment | None

get_ticket_comments(ticket_id: UUID) -> list[Comment]

Comparing API Contracts

Similarities

Google Tasks = Trello Cards = Jira Tickets
Google TaskList = Trello List = Jira ?

I think most work will be cutting down or reorganizing code rather than writing new stuff.

Differences

For GoogleTasks, we didn’t implement an update task in favor of getting a task and then just recreating it with new info.

For GoogleTasks, we don't have priority implementation options. This will likely need to be reflected in the contracts.

Appendix

Google Task API Outlines
https://github.com/gsiri-code/oss-taapp/tree/hw2/src/task_client_api/src/task_client_api

Jira API Outline
https://github.com/kiamygomes/osdp-team6/tree/hw2/src/ticket_api

Trello API Outline
https://github.com/austinhuang0131/oss-fall2025/tree/root/src/kanban_client_api